CLAIM AMENDMENTS

We wish to enter the US national phase with the original claims as filed in the published International Application (PCT/EP2004/051428) together with the currently amended claims as listed below:

1. (Currently Amended) A tool ~~Tool~~ for excavating an object, the tool comprising:
-a jetting system arranged to impinge the object to be excavated with a jetted stream of a drilling fluid mixed with abrasive particles, the jetting system being provided with at least a mixing chamber with a drilling fluid inlet, a second inlet for abrasive particles, and an outlet nozzle for releasing the drilling fluid mixed with the abrasive particles;
-a recirculation system arranged to recirculate at least some of the abrasive particles, from a return stream of the fluid mixed with the abrasive particles downstream impingement of the jet with the object back to the jetting system, whereby the abrasive particles comprise a magnetic material, which recirculation system comprises a separator magnet for separating the abrasive particles from said return stream and for transporting the particles to the second inlet;
-a piece of magnetic material that is provided in or in the vicinity of the mixing chamber such as to draw a part of the magnetic field generated by the separator magnet into the mixing chamber.

2. (Currently Amended) The tool ~~of~~ according to claim 1, wherein said part of the magnetic field in the mixing chamber is directed essentially transverse to a drilling fluid flow path between the drilling fluid inlet and the outlet nozzle.

3. (Currently Amended) The tool ~~of~~ according to claim 1 ~~or 2~~, wherein the piece of magnetic material is located on the side of the mixing chamber opposite from the second inlet.

4. (Currently Amended) The tool ~~of any one of~~ according to claims 1 ~~to 3~~, wherein the recirculation system comprises a support surface to guide the abrasive particles towards the second inlet, and whereby a shield is provided at a distance from the support surface

leaving a gap between the shield and the support surface thereby forming a path from the return stream to the second inlet along the support surface.

5. (Currently Amended) The tool ~~of any one of~~ according to claims 1[[to 4]], wherein the separator magnet of the recirculation system is part of a transport device for transporting the abrasive particles in a selected direction towards the second inlet, which transport device further comprises:
-a support member having a support surface for supporting the abrasive particles, the support surface extending in the selected direction, whereby the separator magnet is arranged relative to the support surface such as to generate a magnetic field for retaining the particles on the support surface whereby, the magnetic field on the support surface is arranged to have a high-field band, a low-field band, and a magnetic field gradient in a gradient zone between said high- and low-field bands whereby the magnetic field strength in the high-field band is higher than that in the low-field band;
-means for advancing the high- and low-field bands relative to the support surface in a direction having a component in the direction of the magnetic field gradient on the support surface, whereby the high-field band is followed by the low-field band.

6. (Currently Amended) The tool ~~of~~ according to claim 5, ~~whereby~~ wherein along said high-field band at least a first magnetic pole and a second magnetic pole of opposite polarity are arranged such that a first magnetic path on the support surface from the first magnetic pole to the second magnetic pole is shorter than a second magnetic path on the support surface crossing the gradient zone from the first magnetic pole to any other nearest magnetic pole of opposite polarity.

7. (Currently Amended) The tool ~~of~~ according to claim 5 ~~or 6~~, wherein the gradient zone is helically arranged around the separator magnet.

8. (New) The tool according to claim 2, wherein the piece of magnetic material is located on the side of the mixing chamber opposite from the second inlet.

9. (New) The tool according to claim 2, wherein the recirculation system comprises a support surface to guide the abrasive particles towards the second inlet, and whereby a shield is provided at a distance from the support surface leaving a gap between the shield and the support surface thereby forming a path from the return stream to the second inlet along the support surface.

10. (New) The tool according to claim 2, wherein the separator magnet of the recirculation system is part of a transport device for transporting the abrasive particles in a selected direction towards the second inlet, which transport device further comprises:
-a support member having a support surface for supporting the abrasive particles, the support surface extending in the selected direction, whereby the separator magnet is arranged relative to the support surface such as to generate a magnetic field for retaining the particles on the support surface whereby, the magnetic field on the support surface is arranged to have a high-field band, a low-field band, and a magnetic field gradient in a gradient zone between said high- and low-field bands whereby the magnetic field strength in the high-field band is higher than that in the low-field band;
-means for advancing the high- and low-field bands relative to the support surface in a direction having a component in the direction of the magnetic field gradient on the support surface, whereby the high-field band is followed by the low-field band.

11. (New) The tool according to claim 10, wherein along said high-field band at least a first magnetic pole and a second magnetic pole of opposite polarity are arranged such that a first magnetic path on the support surface from the first magnetic pole to the second magnetic pole is shorter than a second magnetic path on the support surface crossing the gradient zone from the first magnetic pole to any other nearest magnetic pole of opposite polarity.

12. (New) The tool according to claim 10, wherein the gradient zone is helically arranged around the separator magnet.

13. (New) The tool according to claim 11, wherein the gradient zone is helically arranged around the separator magnet.

14. (New) The tool according to claim 3, wherein along said high-field band at least a first magnetic pole and a second magnetic pole of opposite polarity are arranged such that a first magnetic path on the support surface from the first magnetic pole to the second magnetic pole is shorter than a second magnetic path on the support surface crossing the gradient zone from the first magnetic pole to any other nearest magnetic pole of opposite polarity.

15. (New) The tool according to claim 4, wherein the separator magnet of the recirculation system is part of a transport device for transporting the abrasive particles in a selected direction towards the second inlet, which transport device further comprises:
-a support member having a support surface for supporting the abrasive particles, the support surface extending in the selected direction, whereby the separator magnet is arranged relative to the support surface such as to generate a magnetic field for retaining the particles on the support surface whereby, the magnetic field on the support surface is arranged to have a high-field band, a low-field band, and a magnetic field gradient in a gradient zone between said high- and low-field bands whereby the magnetic field strength in the high-field band is higher than that in the low-field band;
-means for advancing the high- and low-field bands relative to the support surface in a direction having a component in the direction of the magnetic field gradient on the support surface, whereby the high-field band is followed by the low-field band.

16. (New) The tool according to claim 15, wherein along said high-field band at least a first magnetic pole and a second magnetic pole of opposite polarity are arranged such that a first magnetic path on the support surface from the first magnetic pole to the second magnetic pole is shorter than a second magnetic path on the support surface crossing the gradient zone from the first magnetic pole to any other nearest magnetic pole of opposite polarity.

17. (New) The tool according to claim 15, wherein the gradient zone is helically arranged around the separator magnet.

18. (New) The tool according to claim 16, wherein the gradient zone is helically arranged around the separator magnet.